DOCUMENT RESUME

ED 124 813 CG 010 600

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TITLE Some Relationships Between Causality for Task Participation and the Causal Attribution of Task Outcomes.
PUB DATE [75]
NOTE 4p.; Paper presented at the Annual Meeting of the American Educational Research Asscciation (San Francisco, California, April 19-23, 1976)

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS Attitudes; College Students; Creativity; Feedback; *Locus of Control; *Motivation; Perception; *Psychological Patterns; *Relationship; *Task Performance
IDENTIFIERS *Attribution Theory; *Causality

ABSTRACT

This study related subjects' percepticns of their causality for task participation to their causal attributions of task outcomes, their task attitudes, and their task motivation. Subjects received success or failure feedback on a creativity task after experimental manipulations had influenced their perception of their causality for task participation as being of an extrinsic, social, or intrinsic source. Results indicated that subjects motivated by the intrinsic or social factor showed less ego-bias in their causal attributions than extrinsically-motivated subjects. Perceptions of intrinsic motivation were related to greater task motivation, enjoyment, and willingness to participate in a similar experiment. (Author)

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Theoretical Framework. The image of man cast by attribution theory has been that of the rational, information processor motivated to gain a veridical perception of the world in order to control and direct his existence. Yet, there has been convincing data indicating that these rational tendencies often give way to more ego-oriented motives. This has been shown in numerous studies investigating the causal attribution of performance outcomes. In these studies subjects have consistently used ego-enhancive and ego-defensive strategies as evidenced by internal attributions to ability and effort following success and external attributions to task difficulty and luck following failure. The present investigation concerns itself with an attempt to define those conditions under which ego-biased and more rational patterns of attributions occur.

The work of de Charms (1968) and Deci (1975) has implied an interaction between intrinsic and extrinsic motivation (or internal and external control). Increases in extrinsic motivation or the perception of external control necessarily decrease the perception of intrinsic motivation and this, in turn, decreases actual intrinsic motivation. This view has been indirectly supported by research indicating that extrinsic rewards decrease task persistence and "free-choice time" on a variety of tasks (see Deci, 1975), decreases liking and enjoyment of tasks (Kruglanski, Freedman, and Zeevi, 1971; Calder and Straw, 1974b), and decreases the quality of task performance (Kruglanski, et al., 1971). Also, there is evidence that under conditions of greater perceived choice individuals work harder on tasks (Weick, 1964) and are more rational (as opposed to ego-motivated) concerning evaluative outcomes (Eagly and Whitehead, 1972). Yet, as Salancik (1974) has pointed out, none of these studies has supported the hypothesized relationship between the presence of choice or extrinsic rewards and perceptions of internal control and intrinsic motivation. Calder and Straw (1974a) have stated that "research should attempt to relate the self-perception of intrinsic motivation to task performance and attitudes without making premature assumptions about the actual existence or nature of intrinsic motivation (p. 9)."

Objectives. This study attempts to relate subjects' perceptions of their causality for task participation ("Why am I doing this?") to their causal attribution of task outcomes, their attitudes towards the task, and their motivation on the task. As such, this study attempts to provide the link - the perception of intrinsic motivation or internal control - necessary to provide more conclusive evidence that these perceptions are the effective stimuli producing the results summarized previously. This study employs three conditions designed to create systematic differences in subjects' perceptions of task causality:

(1) A choice condition in which extrnnsic factors are minimized in order to create a perception of intrinsic motivation.

(2) A social influence condition in which subjects perceive they are participating in order to please the experimenter.

(3) An extrinsic reward condition in which subjects perceive they are participating in order to earn course credits.

The latter two conditions relate to the external control, while the first condition relates to the internal control. By gathering data on each subject's perceptions of his causality for task participation, it will be possible to investigate the relationships among these perceptions: for instance, do perceptions of intrinsic motivation have an inverse relationship to perceptions of extrinsic motivation as the self-perception analysis suggests? Do perceptions of intrinsic, social, and extrinsic motivation relate to attributional patterns, task attitudes and evaluations, and motivation during during a task?

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Method. The Ss were 48 male and 48 female undergraduates at The Pennsylvania State University. The basic design of the experiment was a 3x2x2 factorial with three levels of Causality for Task Participation (Intrinsic, Social, and Extrinsic), two levels of Task Outcome (Success or Failure), and two levels of Sex (Male and Female). The design consisted of 12 conditions with 8 Ss per cell. The task was a bogus version of Mednick's (1962) Remote Associates Test. The task was altered so that there would be considerable ambiguity concerning one's performance and, thus, the outcome could be effectively manipulated.

There were seven dependent variables in the study. Four of these were attributional judgements of the importance of four causal elements - ability, effort, luck, and task difficulty - in producing the subject's outcome on the creativity task. There were two measures of task attitudes - one related to subjects' enjoyment of the task and the other to their willingness to participate in a similar experiment. Finally, task motivation was measured by the number of items subjects were able to remember from the creativity task.

All Ss were run individually. After receiving instructions concerning the nature of the task, each S was told his responses would be scored and he would receive feedback concerning his success or failure. The Causality manipulation was then manipulated via three different sets of instructions. In the Intrinsic condition, Ss were led to believe that the only reason for their participation was their own interest in the task (they were allowed the choice to leave and still receive credit for participation). In the Social condition, Ss received the same instructions as Intrinsic Ss, but were asked to stay "as a favor to the experimenter." In the Extrinsic condition, Ss were told that they must participate to receive credit.

After the Causality manipulation, Ss worked on the creativity task for 10 minutes. The experimenter scored the responses and then gave the Outcome feedback (Success or Failure) to the S. Following this questionnaries and the recall test related to the dependent measures and the manipulation checks were administered.

Results and Discussion. The effectiveness of the Outcome manipulation was tested by asking each S to rate how successful he would be on a similar task in the future. The effectiveness of the Causality manipulation was tested by asking each S to rate the importance of three factors as influences on his decision to take the creativity test. These factors were "my interest in the creativity test" (Intrinsic), "the experimenter's desire to have me take the test" (Social), and "the two points of course credit"(Extrinsic). Results indicated that the Outcome manipulation successfully induced two levels of experienced outcomes and the Causality manipulation successfully induced three disparate perceptions of causality for task participation.

Of major interest was the relationship between perceptions of intrinsic motivation and perceptions of extrinsic motivation as causal influences on task participation. As predicted by the self-perception analysis, the perception of extrinsic motivation was negatively related to the perception of intrinsic motivation ($r = -.29$, $p < .01$). Although Salancik (1974) has pointed out that there are no logical grounds for the exclusivity of intrinsic and extrinsic motivation, this result suggests that there may be a psychological (e.g., motivational) tendency for humans to see intrinsic and extrinsic forces as mutually exclusive.

The main finding of this study was that conditions which created disparate perceptions of motivation produced differences in causal attributions for outcomes and in actual task motivation. Specifically, Intrinsic Ss exhibited less ego-defensive and ego-enhansive tendencies on the ability ($t=2.90$, $p < .01$), task difficulty ($t=2.45$, $p < .01$), and luck ($t=3.07$, $p < .01$) factors than Extrinsic Ss. Social Ss exhibited less ego-defensive and ego-enhansive tendencies on the effort ($t=2.34$, $p < .05$) and luck ($t=2.72$, $p < .01$) factors than Extrinsic Ss. Additionally, Intrinsic Ss exhibited greater task motivation than Extrinsic Ss ($t=2.17$, $p < .05$) as evidenced by greater recall of task items.

A summary of significant correlational results indicated that perceptions of intrinsic motivation were related to: (1) greater internal attributions (responsibility) and fewer external attributions (defensiveness) for failure; (2) greater internal attributions and fewer external attributions over all conditions; (3) greater task enjoyment; and, (4) greater willingness to participate in a similar experiment. Perceptions of extrinsic motivation were related to: (1) greater external attributions (defensiveness) and fewer internal attributions (responsibility) for failure; (2) greater externality over all outcomes; and, (3) less actual motivation on the task.

These results, taken as a whole, provide substantial support for the self-perception analysis. It has been shown that conditions which influenced perceptions of motivation for task participation created different experiences of that task for the Ss. Evidence was provided which indicated that these perceptions influenced or were related to causal attributions of outcomes, task attitudes, and actual motivation on the task. Since the naive psychology of the "common man" was the starting point for this investigation, it would be appropriate to state this conclusion in everyday language: a person's perception of why he does something affects how he does it, how he feels about it, and what he thinks about it.

Implications. Research related to causal attributions, intrinsic motivation, and self-perception has grown rapidly in the last five years. Weiner's (1971) attributional model has provided the basis from which research on causal attributions of achievement outcomes has proceeded. Although this research has made major strides in terms of the delineation and specification of the various rules and situational parameters which influence the nature of causal attributions, researchers have just recently begun to examine the influence of various types of attributions on subsequent behavior. Thus, research (this study included) until now has been mostly concerned with the link between antecedents and causal ascriptions; it would seem that research should now be directed toward the investigation of the link between causal ascriptions and subsequent behaviors.

Kukla (1970) and Weiner (1974) have already provided evidence that manipulations which influenced individuals' attributions changed their subsequent behavior. In this study it was shown that conditions affecting causality for task participation resulted in greater or less ego-enhansive and ego-defensive attributional tendencies. The behavioral consequences of ego-biased or rational patterns of attributions has yet to be investigated. The connections between patterns of attributions and behavior may have special meaning for the teaching-learning process. While a number of studies have investigated the influence of various student performance patterns on teachers' attributions, these attributions have not been related to subsequent teaching behaviors. The relationship between the student's and teacher's attributions and their subsequent behaviors may provide a specific focus for the study of "self-fulfilling prophesies" and expectancy effects.

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